

process. There is a barrier layer (aluminum oxide layer) 36 between the anodized film 32 and the aluminum substrate 31 or the aluminum film 34. Various applications are being attempted to take advantage of such peculiar geometric structures obtained in anodized films. For example, anodized films may be used as films having high abrasion resistance and high dielectric strength. An anodized film may be separated from an underlying material and may be used as a filter. Furthermore, by filling the nanoholes with metal or semiconductor or by using a replica of nanoholes, other various applications are also possible, such as coloring, magnetic storage media, EL devices, electrochromic devices, optical devices, solar cells, and gas sensors. The anodized film is also expected to have further various applications such as quantum effect devices (quantum fine wires, MIM (metal-insulator-metal) devices), molecular sensors using nanoholes as chemical reaction spaces, etc. (Masuda, Solid State Physics, 31, 493 (1996)).--

IN THE CLAIMS:

Please amend Claims 26-36 to read as follows. A marked-up copy of these claims, showing the changes made thereto, is attached. Please note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

26. (Twice Amended) A method of producing a nanostructure comprising an anodized film including a nanohole on a substrate having a surface containing at least one material selected from the group consisting of semiconductors,